

CLAIMS

1. An automatic device for demounting a tyre (6) from the relative wheel rim (5), comprising, for supporting the wheel rim (5) complete with tyre (6), rotary means (4) associated with a frame (7) which supports a demounting tool (15) and is associated with means enabling it to be positioned in a tyre bead seeking and gripping position in which the tool (15) is perpendicular to the axis or orientated towards the centre of the wheel rim, and in a position for extracting said tyre bead from the wheel rim (5), in which the tool (15) is perpendicular to the axis or orientated in the opposite direction, characterised by comprising a bar (14), to the end of which said tool (15) is hinged in an intermediate position, and a connecting rod (16, 20, 25) which at one end is hinged to one end of said tool (15), and at the opposite end is connected to said bar (14) by a lever linkage (21), said bar (14) being connected to means (10) for advancing it and withdrawing it.
2. A device as claimed in claim 1, characterised in that said connecting rod (16, 20) is of variable length.
3. A device as claimed in claim 2, characterised in that said connecting rod (16, 20) of variable length enables said tool (15) to be positioned in that seeking position in which it is orientated towards the wheel rim centre.
4. A device as claimed in claims 2 and 3, characterised in that said connecting rod of variable length comprises a cylinder-piston unit (16).
5. A device as claimed in claim 4, characterised in that the cylinder of said cylinder-piston unit (16) is hinged to said tool (15), the piston rod (19) of said cylinder-piston unit being hinged to said bar (14) by at least one lever.

6. A device as claimed in claim 1, characterised in that said means for advancing and withdrawing said bar (14) comprise a cylinder-piston unit (10).

7. A device as claimed in claim 6, characterised in that said bar (14) slides within a prolongation (110) of the cylinder of said cylinder-piston unit (10)

8. A device as claimed in claims 4 and 7, characterised in that said piston rod is hinged to said bar (14) by a plate (20) to which there are hinged a pair of levers (21) which at their opposite end are hinged via a slot (210) to an appendix (22) branching from the prolongation (110) of the cylinder (11).

9. A device as claimed in claim 1, characterised in that said device (9) is associated with a carriage (8) which translates vertically on said frame (7).

10. A device as claimed in claim 5, characterised in that said carriage (8) is driven in translation by a male-female screw system.

11. A device as claimed in claim 1, characterised in that said demounting tool (15) presents a hook-shaped lower portion for gripping the bead of the tyre (6).